Certain Uncertainties

Chaos and the Human Experience

Justin G. Schuetz

ACKNOWLEDGMENTS

I would like to acknowledge a number of individuals for their suggestions and support throughout the organization of this exhibition—to portray this project as anything other than collaborative would be misleading. Katharine J. Watson, the director of the Bowdoin College Museum of Art, has wholeheartedly encouraged my exploration of ideas that encompass both art and science. Professors John McKee and Linda J. Docherty have generously offered their time, energy, ideas, and friendship throughout the course of this endeavor. Professors Clifton C. Olds and Mark C. Wethli posited several ideas important to the formation of the project. Insightful comments and suggestions have also been made by members of the studio art, art history, chemistry, English, and physics faculties. Additionally, members of the museum staff—Suzanne K. Bergeron, Chaké K. Higgison '78, Mattie Kelley, José L. Ribas '76, Peter D. DeStaebler '93, and Victoria B. Wilson—have been both helpful and patient. I would also like to thank Susan L. Ransom for her thoughtful editing of this text, Michael W. Mahan '73 for his creative design of this brochure, and Dennis Griggs for his photography of the works reproduced herein. Finally, I am most indebted to the Andrew W. Mellon Foundation, whose generosity has made possible this internship and exhibition.

Justin G. Schuetz '94
Andrew W. Mellon Curatorial Intern

In the spring of 1995, the Andrew W. Mellon Foundation renewed a major grant to the Bowdoin College Museum of Art, the goal of which is the use of the art collections in teaching at the College. For three years, the grant had funded the annual appointment of a curatorial intern who focused on one medium—prints, photographs, or drawings—and who assisted professors teaching that medium in studio and art history courses. The intern was also responsible for a related exhibition, drawn primarily from the museum's collection, and for educational programming and acquisitions for the art collection and library. Although in the renewed grant, the curatorial intern remains a major part of the project, and the intern's responsibilities are much the same, the focus, rather than on the arts alone, is cross-curricular use of the collections with guidance from the art faculty.

To initiate this phase of the Mellon program, Justin G. Schuetz, a member of the Bowdoin Class of 1994, was selected as the fourth Mellon Curatorial Intern. Mr. Schuetz is both an artist, working in photography, and a scientist, who majored in biology and studio art with a special interest in ornithology. Because of his diverse interests, he has been able to reach out to the campus; in response to his letters of inquiry, faculty members from biology, sociology, and computer science as well as the humanities have tapped into the didactic potential of the museum's collections. As teaching assistant for the seminar *Art in Context*, he joined Associate Professor of Art History Linda Docherty and eleven students in exploring multiple ways of looking at works of art reflective of the theoretical issues and intellectual controversy in the fields of art history and museum work today. Their experimentation has resulted in a major gallery installation with a published catalogue at the Museum of Art scheduled simultaneously with this project. Mr. Schuetz also assisted Associate Professor of Art History Susan E. Wegner with her seminar entitled *Women Patrons and Painters*.

Early in his internship, Justin Schuetz selected the topic of chaos theory for research. The principles of this new area of investigation have encouraged him to question definitions of order and disorder. For his exhibition, *Certain Uncertainties: Chaos and the Human Experience,* Mr. Schuetz selected thirty-one works, mostly contemporary, which indicated to him that the artist and scientist see the world in similiar ways, confront similiar problems of perception and conception, and have closer affinities than are recognized by them or by the viewers of art.

The challenge that Justin Schuetz faced in realizing this project was considerable. Not only was he trying to bring together fields commonly perceived as being at great distance from each other, but he was attempting something for which he had limited precedent and few guidelines. The experiment has been a success. His achievement in the exhibition will be readily apparent to the viewer and fulfills precisely the goals of the Mellon grant.

On behalf of the Museum of Art, I wish to express my gratitude to the Andrew W. Mellon Foundation which has given essential support to Justin G. Schuetz and created by its generosity ample room for innovation and risk-taking. I am also appreciative of Mr. Schuetz's courage and hard work.

Katharine J. Watson
Director

JULY MOUNTAIN

We live in a constellation

Of patches and pitches,

Not in a single world,

In things said well in music,

On the piano, and in speech,

As in a page of poetry—

Thinkers without final thoughts

In an always incipient cosmos,

The way, when we climb a mountain,

Vermont throws itself together.

—Wallace Stevens

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Certain Uncertainties

Chaos and the Human Experience

Art and science see in this world of biology a portable logic of life.

—Frederick Sommer [1]

Distinctions are easy enough to draw. Useful ones are another matter.

—John Dupré [2]

Over the last hundred years scientists have observed the physical world with increasingly sophisticated tools. Previously unknown relationships have emerged as advances in technology have enhanced our understanding of the cosmos. Computers, in particular, have affected conceptions of the universe by augmenting our ability to gather and interpret data that describe naturally occurring patterns. Now, at the push of a button or the click of a mouse, computers scan vast quantities of information, searching for relationships or anomalies beyond the reach of immediate human perception. One result of this investigation has been the rethinking of our conceptions of order and disorder.

The young science of chaos, which is wholly dependent upon computer technology, asserts that orderly arrangements often lurk just beneath the surface of systems that seem disorderly. Chaos scientists argue—with the help of computers—that apparently random events, such as the dripping of a leaky faucet, often display patterned behavior and can, in some cases, be described by just a few principles and equations. What was once unintelligible has become intellectually accessible. And as the natural world is scrutinized ever more carefully, the once distinct boundary between order and disorder becomes increasingly faint and ambiguous.

Whether consciously or unconsciously, artists too have explored the subtle and complex relationships between order and disorder. Throughout the twentieth century, the general tendency toward abstraction has liberated artists from the tradition of visual narration, for example, of religious or historical events. By emphasizing formal relationships, much of this century's art defers specific interpretation and instead suggests a variety of conceptual readings. The MARKS AND SHAPES that compose a work frequently test the boundaries between order and disorder, as do the PERSPECTIVE depicted within a scene and the SUBJECT MATTER represented. These elements, each important to the interpretation of a work, provide an arena in which the ambiguous relationships between order and disorder can be visually explored.

Jasper Johns, *Numeral 8*, 1975 © 1996 Jasper Johns/Licensed by VAGA, New York, NY

MARKS AND SHAPES The tension between order and disorder is frequently addressed within the context of mark-making. By their nature, some marks indicate a mathematical precision and premeditation, whereas others avoid predictability and organization. Relationships between order and disorder are often revealed as artists explore the potential of lines, scratches, dots, and squiggles to bear a variety of associations.

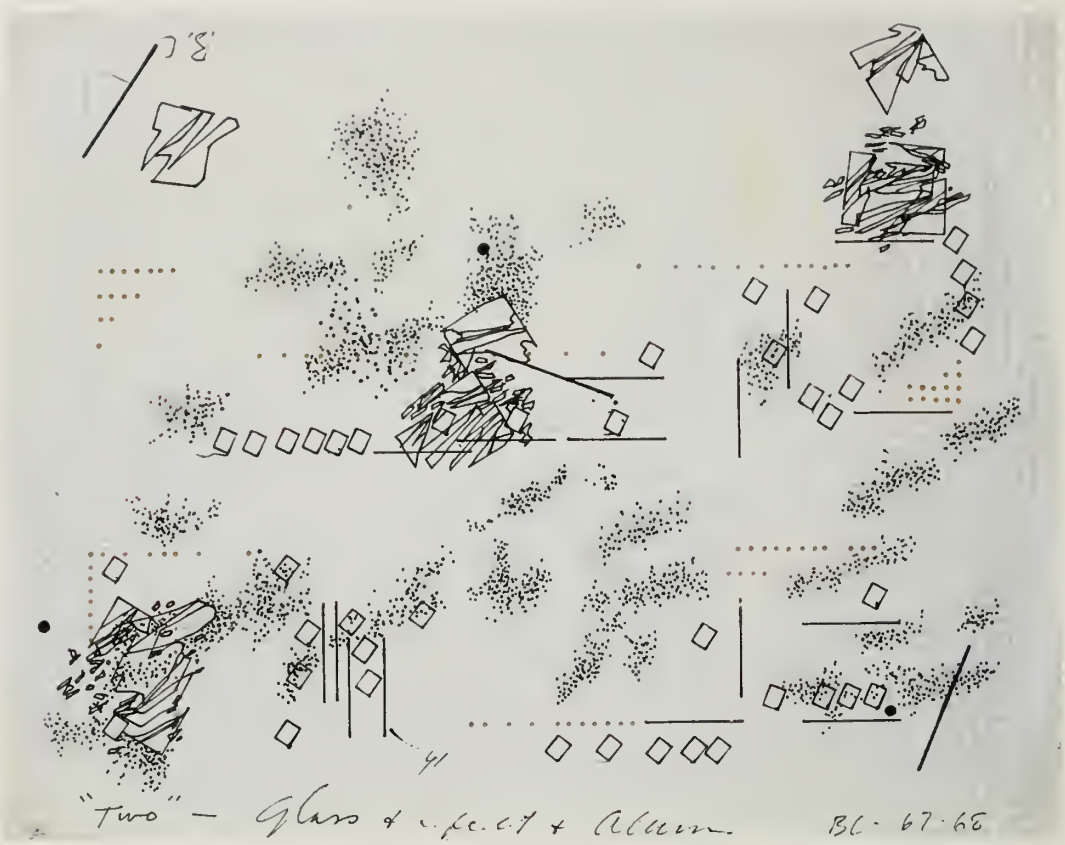
In the etching *Numeral 8*, Jasper Johns explores the expressive potential of line and shape. The definitive form of the figure "8" and the undulating gray field trace intellectual conceptions of order and disorder. Through a succinctly executed series of marks, the artist communicates a profound tension between the rationality of a mathematical numeral and the unintelligibility of a gray sea. In doing so he also invites debate on the essential source of order. It is unclear whether the universe is ordered, requiring only an astute viewer to perceive it, or alternatively, whether order is generated wholly within the human mind, imposing itself willy-nilly upon the universe. In this case, the "8" could be conceived of in two ways, either surveyed within the confusing gray field or built on top of it. The interpenetration of the numeral and the ground obscures a definitive interpretation.

You believe in a God who plays dice, and I in complete law and order.

— Albert Einstein

Etc. Some time ago counting, patterns, tempi were dropped. Rhythm's in any length of time (no-structure). Aorder. It's definitely spring—not just in the air. Take as an example of rhythm anything which seems irrelevant.

— John Cage



Barry Le Va, *"Two" — Glass & Felt & Alum*, 1967-68
© 1967-68 by Barry Le Va

Barry Le Va engages ideas of order and disorder by filling a ruled piece of paper with a seemingly unruly group of subjects. Dots, lines, delicate shades of graphite, and angular shapes are strewn across *"Two" — Glass & Felt & Alum*, apparently disassociated from the orderly grid beneath them. The regularity of the perfect horizontals and verticals is continuously interrupted by the broken forms that seem to be dropped haphazardly upon the page.

It is surprising, then, that the positioning of the shapes was premeditated, or at least the process by which they eventually found their place was premeditated. The work is, in fact, a preparatory drawing for a large installation piece in which felt, glass, and aluminum are placed throughout a room—implicitly, the grid—according to the design of the sketch. In spite of the apparent disorder of its constituent forms, the drawing is an essential component of a methodic creative process.

The forms and lines in Louisa Chase's *Face to Face* series, like those in the Le Va drawing, do not immediately suggest a sense of order. Rather, in each of the three etchings, the artist challenges us to distill structure from aggregations of chaotic scratches. Visual fragments are left to be assimilated and organized by the mind's eye. In each of the prints, a human presence is intimated by just a small number of cues. And as we attempt to reconcile our perception of erratic marks with our conception of what they represent, gestural ellipses become faces suspended within a field, tightly drawn lines become eyes. The words "face to face," which appear faintly in two of the images, further suggest an order within each set of scrawls.

Chase solidifies an order among the images as well. The red, blue, and yellow tints, rolled onto the surface of the prints, form a cohesive triad of color. Each image, bearing one of the primary colors, is essential for completing the chromatic spectrum. A sense of closure accompanies such an efficient appropriation of parts, reiterating an order discovered.

There are some enterprises in which a careful disorderliness is the true method.

—Herman Melville

Louisa Chase, from the *Face to Face* series, 1985
© 1985 by Louisa Chase

Life is never orderly, really. It's just a patch of things straining for order.

—Aaron Siskind

Louisa Chase, from the *Face to Face* series, 1985
© 1985 by Louisa Chase

Louisa Chase, from the *Face to Face* series, 1985
© 1985 by Louisa Chase

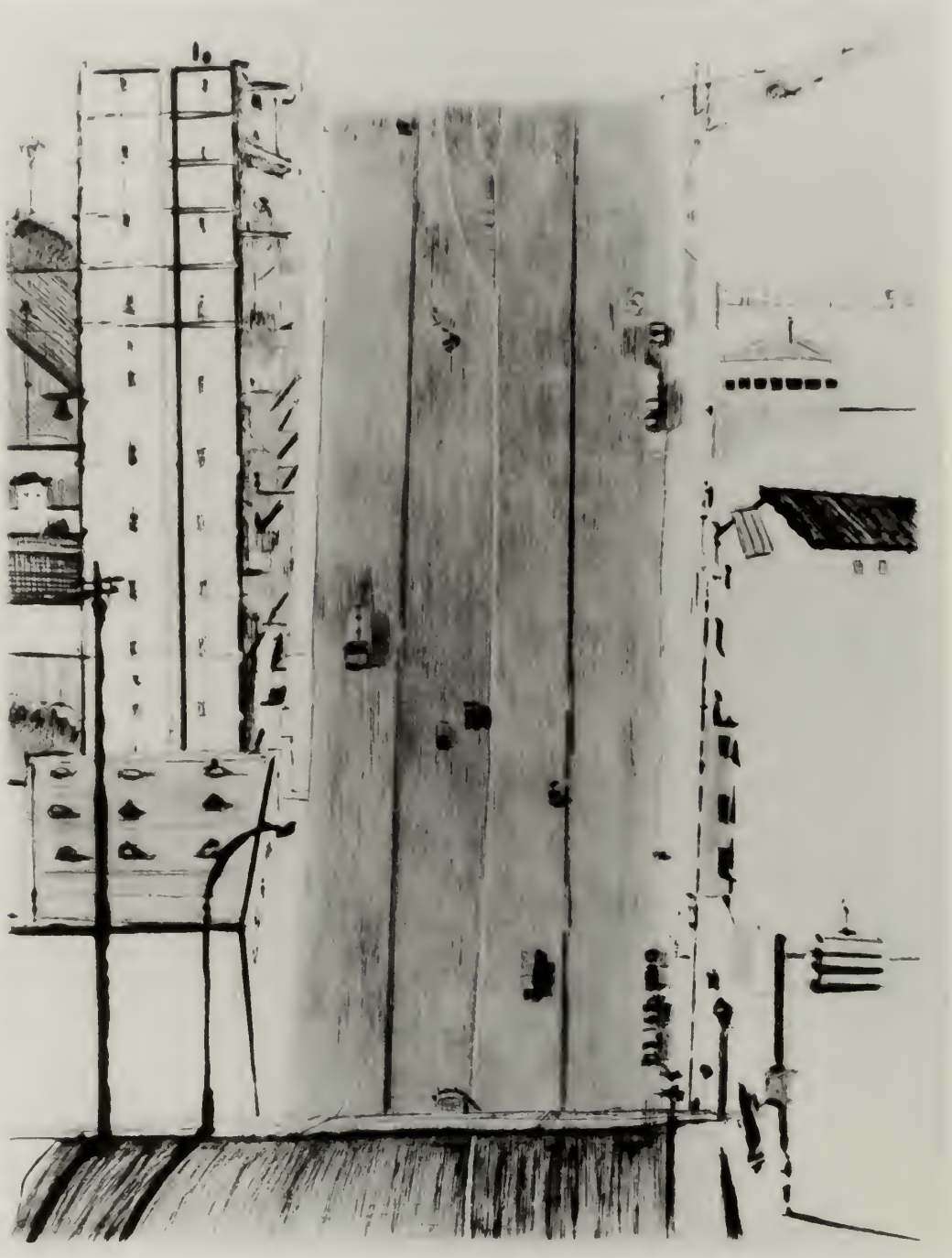
PERSPECTIVE Just as types of marks and other formal components acquire associations with order and disorder, so do methods of seeing. Because we experience our surroundings more or less on the same terms every day, we become familiar with their appearances. For those of us who are accustomed to viewing the world from a fixed perspective, the distance at which objects are encountered and their relative sizes are important factors in developing our visualization of the world *and* its representations. These expectations constitute a system, or order, of perception which acts as a template for viewing the environment. By manipulating factors that have formed this template, artists explore the tension between expectation and actuality, order and disorder.

Though clearly grounded in the reality of an urban scene, Wayne Thiebaud's drypoint *Wide Downstreet* departs from the normal order of visual experience. Identifiable pieces of the San Francisco landscape such as the telephone pole, the street light, and the cars are pasted on the page in violation of predicted perspective. By separating the image of the scene from the reality it represents, Thiebaud chooses to snub our expectations of a real space. The road is flat upon the page as if it were a wall and buildings float strangely, without foundations, over the surface of the print. Our conventional system of seeing is further challenged by the minute landscape images that puncture the image's surface, opening windows into alternative worlds.

In photography, spatial relationships and visual information are recorded with an optical certainty similar to—but not identical with—that of our own perception. Consequently, our expectation is that photographs present reality in a manner consistent with our own impression of objects and spaces. It is disconcerting, therefore, when a photographic image eludes immediate identification. *Water Pouring Out of a Pot,* a photograph by Abelardo Morell, does just that by eliminating an instantly recognizable environment from the image. There are very few cues as to the nature of the space, or indeed the scale of the objects depicted. Details offered by the

The order that our mind imagines is like a net, or like a ladder, built to attain something. But afterward you must throw the ladder away, because you discover that, even if it was useful, it was meaningless.

—Umberto Eco



Wayne Thiebaud, *Wide Downstreet*, 1985
© 1985 by Wayne Thiebaud

Abelardo Morell, *Water Pouring Out of a Pot*, 1992
© 1992 by Abelardo Morell

Perhaps there are no real patterns, only those that we feeble-mindedly impose.

—*Ian Stewart*

John Pfahl, *Six Oranges,* 1975
© 1975 by John Pfahl

Order is a necessary condition for anything the human mind is to understand.

—*Rudolph Arnheim*

camera's "objective" lens present tantalizing bits of reality but resist an immediate visualization of the scene. We are suspended in a chaotic viewing experience until we realize that the small kitchen pot and the flowing water are just a few inches away from the camera's lens, and our own eye.

In the photograph *Six Oranges,* John Pfahl subverts an orderly system of visualization by another means. In our conventional system of perspective, objects presumed to be of comparable size will appear smaller if more distant. However, in this image—one of his *Altered Landscapes*—the artist negates this expectation by placing larger oranges progressively further down a path; thus our presumption of comparable size is in conflict with our perception of distance. By arranging the oranges in this manner Pfahl corrupts our typical mode of seeing in a three-dimensional world and offers an alternative. The photograph is no longer just a window through which a scene unfolds; it becomes a two-dimensional surface on which six orange circles, poised in a sky of green and brown, coalesce to form a constellation. By manipulating the environment to produce such visual anomalies, Pfahl questions the role that human concepts play in defining order.

SUBJECT MATTER Most human endeavors, being the product of directed thought and activity, inevitably influence the spaces in which they take place. Sculpture, agriculture, and industry, for example, unavoidably affect the structure of their surroundings. Ironically, these ordering processes often compete with the notion of a "natural" order in which such human activities seem—or are deemed—invasive. By recording interactions between natural and man-made subjects, artists may encourage consideration of our relationship with the environment in addition to evoking the tension between our ideas of order and disorder.

I would not have every man nor every part of man cultivated, any more than I would have every acre of earth cultivated....

—*Henry David Thoreau* [10]

Aaron Siskind, *Appia Antica, Rome,* 1967
© 1967 by Aaron Siskind, courtesy of the Aaron Siskind Foundation

Phenomena intersect; to see but one is to see nothing.

—*Victor Hugo* [11]

In Aaron Siskind's *Appia Antica, Rome,* two ancient Roman statues, suggesting the complex order of civilization, confront the inevitability of decay. Taut ridges of drapery and precisely measured proportions, indicating definite human notions of structure and beauty, are eroded by the elements. The culture and control that produced the sculptures dissolve as the marble figures battle the effects of lichens and rain. Siskind accentuates the tension between the sculpted figures and the processes that engulf them by intensifying the darkness of the image. The ambiguous black background surrounds the gray figures, forecasting their gradual return to an undifferentiated environment.

Interactions between humans and their surroundings are often much more immediate. In *Dicembre,* a photograph by Mario Giacomelli, plowed linear furrows and leaf-like patterns of snow simultaneously configure the landscape. Stark black and white shapes flatten the perspective of the scene, inviting a formal analysis of the image. Two systems of organization emerge, one we might term mechanical and the other organic, or (for the chaos scientist) "fractal"—a term denoting intricate, orderly patterns within nature. In our minds the linear and fractal—bearing associations of man and nature, respectively—struggle for priority, each system of organization undoubtedly chaotic compared to the other. That Giacomelli delights in exploring this dynamic between humans and their surroundings is unquestioned; he is known to have plowed designs in fields before photographing them from his airplane.

In *Gold Mine, Arizona,* Frederick Sommer objectively details the presence of a mining operation in an Arizona landscape. Yet, because of the ambiguity of scale, only upon contemplation does one realize the interaction depicted between man and nature. From a distance, we recognize in the

Mario Giacomelli, *Dicembre*, 1955-56
© 1955-56 by Mario Giacomelli

mining operation orderly, even beautiful, arrangements of earth amidst a chaotic conglomeration of dirt and rocks. The linearity of the mine tailings appeals, reflecting a certainty of purpose inapparent elsewhere in the scene. Paradoxically, the effects of such industry can also be seen as disruptive to the visual integrity of the landscape; geologic and organic patterns are inevitably compromised as the earth is excavated. Seen in this light, the mine becomes a blight upon the lanscape rather than a gem in its midst. Consequently, interpretation of the image is perched precariously between shifting definitions of order and disorder.

Although our perceptions of order and disorder—and the distinction between them—have become increasingly complex and ambiguous, there can be little doubt that artists and scientists, as well as philosophers, will continue to probe the tension between the two. The works in this exhibition incorporate aspects both of order and disorder, suggesting humankind's enduring search—perhaps longing—for a sense of meaning in an impassive universe.

NOTES

1. Frederick Sommer, "General Aesthetics, 1979" in *Words* (Tucson: Center for Creative Photography, University of Arizona, 1984), 30.

2. John Dupré, *The Disorder of Things: Metaphysical Foundations of the Disunity of Science* (Cambridge, MA: Harvard University Press, 1993), 17.

3. Albert Einstein to Max Born in Ian Stewart, *Does God Play Dice?: The Mathematics of Chaos* (Oxford: Basil Blackwell Ltd., 1989), 1.

4. John Cage. "Rhythm, Etc." in *A Year From Monday: New Lectures and Writings by John Cage* (Hanover, NH: Wesleyan University Press, 1963), 123.

5. Herman Melville, *Moby Dick;* or *The Whale* (Garden City, NY: Doubleday, Doran, and Company, Inc., 1924), 403.

6. Aaron Siskind in Michael Torosian, *The Siskind Variations: A Quartet of Photographs and Contemplations* (Toronto, Lumiere Press, 1990), 10.

7. Umberto Eco, *The Name of the Rose* (San Diego: Harcourt, Brace, Jovanovich, Publishers, 1980), 492.

8. Ian Stewart, *Does God Play Dice?: The Mathematics of Chaos* (Oxford: Basil Blackwell Ltd., 1989), 7.

9. Rudolf Arnheim, *Entropy and Art; An Essay On Disorder and Order* (Berkeley: University of California Press, 1971), 1.

10. Henry David Thoreau, "Walking" in *Walden and Selected Essays.* (Chicago: Packard and Company, 1947), 352.

11. Victor Hugo in *The Toilers of the Sea* as cited by William Least-Heat Moon in *PrairyErth: (a deep map)* (Boston: Houghton Mifflin Company, 1991), 64.

FOR FURTHER READING

Rudolph Arnheim. *Entropy and Art: An Essay on Disorder and Order.* Berkeley: University of California Press, 1971.

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Benjamin Lee Whorf. *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf.* Edited by John B. Carroll. Cambridge, MA: The M.I.T. Press, 1956.

WORKS IN THE EXHIBITION

All works, with the exception of catalog numbers 8, 21, and 28, are in the permanent collection of the Bowdoin College Museum of Art. Starred works are illustrated in this brochure.

1. José Bedia
Cuban, b. 1959
Cyclón vs Rayo, 1994
etching, aquatint, and chine collé
(sheet) 37.9 x 75.9 cm (14 15/16 x 29 7/8 inches)
(image) 22.4 x 55.2 cm (8 13/16 x 21 3/4 inches)
Anonymous gift and museum purchase, Art Acquisitions Fund
1995.8.2

2. Hans Bellmer
German, 1902–1975
Poupée with Caned Chair Seat, c. 1935
hand-colored gelatin silver print
(sheet) 17.7 x 15.0 cm (6 15/16 x 5 7/8 inches)
(image) 14.4 x 14.2 cm (5 5/8 x 5 9/16 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1986.34

*3. Louisa Chase
American, b. Panama, 1951
From the *Face to Face* series, 1985
etching with rolled tone
(sheet) 29.5 x 28.6 cm (11 5/8 x 11 1/4 inches)
(image) 11.2 x 9.8 cm (4 3/8 x 3 7/8 inches)
Anonymous gift and museum purchase, George Otis Hamlin Fund
1990.15

*4. Louisa Chase
American, b. Panama, 1951
From the *Face to Face* series, 1985
etching with rolled tone
(sheet) 29.5 x 28.2 cm (11 5/8 x 11 1/8 inches)
(image) 11.2 x 9.8 cm (4 3/8 x 3 7/8 inches)
Anonymous gift and museum purchase, George Otis Hamlin Fund
1990.16

*5. Louisa Chase
American, b. Panama, 1951
From the *Face to Face* series, 1985
etching with rolled tone
(sheet) 29.8 x 28.6 cm (11 3/4 x 11 1/4 inches)
(image) 11.2 x 9.8 cm (4 3/8 x 3 7/8 inches)
Anonymous gift and museum purchase, George Otis Hamlin Fund
1990.17

6. Joseph Cornell
American, 1903–1972
Untitled (How to make a Rainbow), 1972
lithograph and screen print with varnish stencil
(sheet) 49.2 x 39.1 cm (19 3/8 x 15 3/8 inches)
(image) 36.5 x 27.6 cm (14 3/8 x 10 7/8 inches)
Gift of William H. Alexander
1988.42.19

7. Robert Cumming
American, b. 1943
Palette, Pedestal (II), 1991
spitbite and hardground etching
(sheet) 94.0 x 68.5 cm (37 x 27 inches)
(image) 60.5 x 50.5 cm (23 13/16 x 20 inches)
Museum purchase and anonymous gift
1991.83

8. Ellen Garvens
American, b. 1955
Working sketch: Opaque Birds, 1992
gelatin silver prints, tape, blue and black ink
(sheet and images) 10.1 x 30.0 cm (4 x 11 7/8 inches)
Lent by the artist

*9. Mario Giacomelli
Italian, b. 1925
Dicembre, 1955-56
gelatin silver print
(sheet and image) 40.2 x 28.9 cm (15 3/4 x 11 3/8 inches)
Gift of Mr. Russell J. Moore
1978.3

10. Eva Hesse
American, 1936–1970
Untitled, 1964
watercolor, colored inks, and collage on paper
(sheet) 49.8 x 64.7 cm (19 5/8 x 25 1/2 inches)
Museum purchase, George Otis Hamlin Fund
1995.18

*11. Jasper Johns
American, b. 1930
Numeral 8 from the portfolio *0–9*, 1975
soft-ground etching with lift-ground aquatint and open-bite
(sheet) 21.2 x 15.5 cm (8 5/16 x 6 1/8 inches)
(image) 6.4 x 5.4 cm (2 1/2 x 2 1/8 inches)
Gift of Alex Katz
1984.17

*12. Barry Le Va
American, b. 1941
"Two" — Glass & Felt & Alum, 1967–68
black and orange felt-tip pen, graphite and blue pencil on graph paper
(sheet) 21.4 x 27.8 cm (8 7/16 x 10 15/16 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1986.51

13. Sol LeWitt
American, b. 1928
Lines and Color. Straight, Not Straight & Broken Lines Using All Combinations of Black, White, Yellow, Red, & Blue for Lines & Intervals, 1977
silkscreen
(sheet) 76.3 x 76.3 cm (30 x 30 inches)
Museum purchase, Elizabeth B. G. Hamlin Fund
1979.1

14. Henri Michaux
Belgian, 1899–1984
Untitled, 1960
India ink on paper
(sheet) 74.8 x 108.2 cm (29 7/16 x 42 1/2 inches)
Gift of William H. Alexander
1988.42.10

*15. Abelardo Morell '71
American, b. Cuba, 1948
Water Pouring Out of a Pot, 1992
gelatin silver print
(sheet) 60.9 x 50.5 cm (24 x 19 7/8 inches)
(image) 57.1 x 45.6 cm (22 1/2 x 17 7/8 inches)
Museum purchase, Helen Johnson Chase Fund
1993.2

16. Joshua Neustein
Israeli, b. Poland, 1940
Injury, Sleep, and Warmth, 1973
tissue paper, carbon paper, colored pencil, and graphite
(sheet) 17.5 x 21.6 cm (6 7/8 x 8 1/2 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1989.37

17. Joshua Neustein
Israeli, b. Poland, 1940
Fractal, 1974
white paper and carbon paper
(sheet) 17.0 x 21.6 cm (6 5/8 x 8 1/2 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1989.38

18. Joshua Neustein
Israeli, b. Poland, 1940
Autonomous Engraving, 1974
black carbon paper and tissue
(sheet) 16.9 x 21.7 cm (6 5/8 x 8 1/2 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1989.39

19. Claes Oldenburg
American, b. 1929
Lipstick Ascending on Caterpillar Track, 1972
lithograph
(sheet) 76.2 x 59.3 cm (30 x 23 3/8 inches)
(image) 48.2 x 36.0 cm (19 x 14 3/16 inches)
Museum purchase, Elizabeth B. G. Hamlin Fund
1979.3

*20. John Pfahl
American, b. 1939
Six Oranges, 1975
dye transfer print
(sheet) 21.6 x 28.0 cm (8 1/2 x 11 inches)
(image) 20.7 x 25.6 cm (8 1/8 x 10 1/16 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1986.8

21. Jim Phalen
American, b. 1957
Cow Tongue, Knife, and Spoon, 1992–93
oil on panel
(panel) 50.7 x 61.0 cm (20 x 24 inches)
Lent by the artist

22. Man Ray (Emmanuel Radensky)
American, 1890–1976
Space Writing (Self-Portrait), 1935
gelatin silver print
(sheet and image) 8.2 x 5.9 cm
(3 1/16 x 2 5/16 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1987.15

23. Edward Joseph Ruscha and Mason Douglas Williams
American, b. 1937 and 1938
Double Standard, 1969
screenprint
(sheet) 65.3 x 101.4 cm (25 11/16 x 39 15/16 inches)
(image) 49.9 x 93.9 cm (19 9/16 x 36 15/16 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1982.29

*24. Aaron Siskind
American, 1903–1991
Appia Antica, Rome, 1967
gelatin silver print
(sheet) 56.0 x 65.5 cm (22 x 25 3/4 inches)
(image) 39.0 x 49.0 cm (15 3/8 x 19 1/4 inches)
Gift of David P. Becker '70
1991.60

*25. Frederick Sommer
American, b. Italy, 1905
Gold Mine, Arizona, 1943
gelatin silver print
(mount) 30.4 x 35.6 cm (12 x 14 inches)
(sheet and image) 19.4 x 24.5 cm
(7 5/8 x 9 9/16 inches)
Gift of David P. Becker '70
1989.41.25

26. Josef Sudek
Czechoslovakian, 1896–1976
Untitled, 1975
gelatin silver print
(sheet and image) 11.9 x 16.8 cm
(4 11/16 x 6 5/8 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1993.40

*27. Wayne Thiebaud
American, b. 1920
Wide Downstreet, 1985
drypoint
(sheet) 48.8 x 38.2 cm (19 3/16 x 15 1/16 inches)
(image) 30.3 x 22.8 cm (11 15/16 x 9 inches)
Museum purchase, George Otis Hamlin Fund
1988.18

28. Robert Van Vranken '82
American, b. 1960
Untitled (Waiting for Odysseus), 1995
mixed media
(image with frame) 155 x 126.4 cm
(61 x 49 3/4 inches)
Lent anonymously

29. Brett Weston
American, b. 1911
Untitled, 1953
gelatin silver print
(mount) 45.6 x 38.2 cm (17 15/16 x 15 inches)
(sheet) 34.6 x 26.2 cm (13 5/8 x 10 5/16 inches)
Museum purchase, Art Objects Fund
1969.30

30. Mark Wethli
American, b. 1949
Under a Northern Sky, 1992
oil on canvas
(canvas) 137.2 x 121.9 cm (54 x 48 inches)
Museum purchase, George Otis Hamlin Fund
1992.17

31. William Wiley
American, b. 1937
Now Here's That Blame Treaty, 1983
soft ground etching, aquatint, and drypoint
(sheet) 131.3 x 106.8 cm (51 11/16 x 42 inches)
(image) 113.2 x 91.1 cm (44 9/16 x 35 7/8 inches)
Museum purchase, Lloyd O. and Marjorie Strong Coulter Fund
1984.49

COVER
Frederick Sommer, *Gold Mine, Arizona,* 1943
© 1943 by Frederick Sommer

BACK COVER
Ian Stewart, *Does God Play Dice?: The Mathematics of Chaos* (Oxford: Basil Blackwell Ltd., 1989), 5.

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This brochure accompanies an exhibition of the same name at the Bowdoin College Museum of Art, Brunswick, Maine, from April 17 through June 2, 1996.

Some innate impulse makes humankind strive to understand the regularities in nature, to seek the laws behind the wayward complexities of the universe, to bring order out of chaos.

—Ian Stewart

Bowdoin College Museum of Art
Brunswick, Maine